



IEEE CINCINNATI SECTION NEWSLETTER – MAR. 2009

MARCH MEETING

Construction and Single Molecule Analysis of phi29 DNA-Packaging Motor for Applications in Nanotechnology and Delivery of Therapeutics

DATE: Thursday, March 26, 2009
PLACE : Raffel's – 10160 Reading Road (see below for directions)
TIME : 5:30 p.m. to 6:00 p.m. - Social Time
6:00 p.m. to 7:00 p.m. - Dinner
7:00 p.m. to 8:30 p.m. - Presentation

COST FOR DINNER: \$10.00 per person – REGARDLESS OF MEMBERSHIP OR MEMBERSHIP GRADE!

NOTE: DINNERS ARE ALWAYS OPTIONAL - YOU MAY ATTEND THE PROGRAM ONLY.

MENU SELECTIONS: Stuffed Pasta Shells, BBQ'd Ribs, Marinated Char-Grilled Chicken Breast, Au Gratin Potatoes, Buttered Corn, Cole Slaw, Tossed Salad, Dinner Rolls and Butter, Assorted Cheese & Fruit Filled Tarts, Coffee, Tea, Iced Tea, Soft Drinks. There is also a bar available for the purchase of alcoholic drinks.

LOCATION: Raffel's is located at 10160 Reading Road, south of Glendale-Milford Road on the east side of Reading. Take I-75 to the Glendale-Milford Rd. Exit, go east on Glendale-Milford Road approximately $\frac{3}{4}$ of a mile to Reading Rd. and turn right on Reading.

RESERVATIONS: Please email Fred Nadeau for reservations at <mailto:fnadeau1@earthlink.net> (preferred) or call the Section Voice Mail at 513-629-9380 by **Noon, Tuesday, March 24, 2009** if you plan to attend. Please leave your Name, IEEE Member Number, and a daytime telephone number.

PE CREDITS: Depending on the subject matter, attendance at IEEE Cincinnati Section Meetings now qualifies the attendee for Professional Development Hours towards renewal of Professional Engineers Licenses. Required documentation will be available following the meeting! The Section Meetings also provide a great opportunity to network with fellow engineers in the area.

ABOUT THE MEETING: Our speaker this month, Dr. Peixuan Guo, received his Ph.D. from University of Minnesota in 1987. After completing his postdoctoral training at NIH, he joined Purdue University in 1990, was tenured in 1993, became a full Professor of Molecular Virology in 1997, and was honored as Purdue Faculty Scholar in 1998. Currently, he is Dane and Mary Louise Miller Endowed Chair in Biomedical

Engineering at the University of Cincinnati and the Director of one NIH Nanomedicine Development Center (NDC). He constructed the phi29 DNA packaging motor (PNAS, 1986), discovered the motor pRNA (Science,

1987), elucidated the formation of the pRNA hexamer (Molecular Cell, 1998), and pioneered the RNA nanotechnology (Nano Letters, 2004, 2005). His recent contribution is the use of phi29 pRNA as a polyvalent vector for siRNA or drug delivery to specific cancer or viral infected cells. His laboratory has assembled a customized dual viewing system to detect single-fluorophores (EMBOJ, 2007; RNA, 2007). Dr. Guo received the Pfizer Distinguished Faculty Award in 1995, the Purdue Faculty Scholar award in 1998, the Seed Award in 2004, 2005, and 2007, and the Lions Club Cancer Research Award in 2006. Dr. Guo was also selected by Foresight Nanotech Institute as one of the Finalist for a Feynman Prize in 2005. He is an editor/editorial board member of four nanotech journals. His work has been reported hundreds of times over the radio, TV (such as ABC, NBC, and WLFI), and as well as important websites including NCI, NIH, NSF, MSNBC, and Science. He was a member of two prominent national nanotechnology initiatives sponsored by NIST, NIH, NSF, and the National Council of Nanotechnology. Currently, Dr. Guo is a member of the NIH steering committee for the eight Nanomedicine Development Centers located throughout the US. You can learn more about Dr. Guo's scientific research at:

<http://www.eng.uc.edu/nanomedicine/peixuanguo.html>

<http://www.eng.uc.edu/nanomedicine/>

MEMBERSHIP NEWS

NEW MEMBERS

The following individuals are IEEE members who are new to our Section:

Lucas Altman	Jesse J. Sharpe
Richard Chen	George Michael Shiekh
Nilesh N. Joshi	Manit Vichitchot
Paul Musgrave	Charles David Walker
Scott T. Piegols	Andrew T. Zwit
Geoffrey Pierce	

We wish to welcome these new members to the Cincinnati Section!!!

Scanning the Past: A History of Electrical Engineering from the Past

Submitted by Bob Morrison, Editor

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Benjamin G. Lamme and Giant Generators

One hundred years ago, a large hydroelectric power plant began operation at Niagara Falls, NY. The plant was a milestone in the history of the generation and distribution of electric power and it helped educate a generation of engineers on the advantages of alternating current. The plant was a prototype which provided enough flexibility to serve the needs of a variety of consumers both near the power plant and at remote locations. Benjamin G. Lamme played a leading role in the design of the giant generators used in the Niagara Falls power station and would later become chief engineer of the Westinghouse Electric and Manufacturing Company.

Lamme was born on a farm near Springfield, OH, in 1864. He graduated in mechanical engineering from Ohio State University in 1888. After a few months back on the farm, he joined the Westinghouse Company in 1889 where he became an assistant to Albert Schmid, well known for his innovative machine designs. Lamme designed a single-reduction railway motor with machine-wound coils which was marketed by Westinghouse beginning in 1891. He designed much of the apparatus for the Westinghouse exhibit at the Columbian Exposition in Chicago in 1893, including alternating-current generators, induction motors, and rotary converters.

Over a period of several years, Lamme developed a design methodology based on the field-form method of analysis. He later wrote that his method had "proved of incalculable value, especially in the analyses and developments of new types of apparatus." He did much of the work on perfecting the methodology at night at his home. Unlike many contemporary designers, he avoided using the mechanical slide rule, preferring instead his well developed "mental slide rule." The method was utilized in designing all types of electrical machinery and involved direct calculation of magnetic flux in air gaps.

In addition to his design work on the Niagara Falls alternators, Lamme designed the "monster machines" for the power plant of the Manhattan Elevated Railway in New York City. The plant used eight slow-speed direct-current generators, each of which was forty feet high and weighed approximately a million pounds. Lamme was responsible for designing the popular type C induction motor which came on the market in 1896 and was described at the time as having performance characteristics that were "unsurpassed." He used a technique of reducing the voltage applied to the motor when starting to limit the surge in line current. He was among the leaders in the introduction of large turboelectric generators which began to supplant older slow-speed, engine-driven, generators in the first decade of the 20th century. He later wrote in his autobiography that he had "always liked high speed" and thus had become an enthusiastic participant in "the race for higher speeds" in the field of electric machinery.

Lamme became chief engineer at Westinghouse in 1903 and held the position for the rest of his life. During World War I, he represented the American Institute of Electrical Engineers (AIEE) on the Naval Consulting Board. He received the Edison Medal of the AIEE in 1919 in recognition of his contributions to the electrical power field. For a number of years, he taught in-house design classes to young engineers at Westinghouse. Those who had studied under him organized a club known as the "Laminations" which featured invited lectures by Lamme and others. Lamme himself received more than 160 patents during his career.

Lamme had a lifelong interest in archaeology and had a sizable personal collection of projectile points and other artifacts. He was also an amateur photographer and had an interest in mathematical puzzles.

He died in 1924 at the age of 60. His will included a bequest to AIEE which was used to initiate the Lamme Medal in 1928 to recognize outstanding design engineers in the power field. He also endowed two engineering scholarships at Ohio State University, and contributed to the support and education of a number of French orphans after World War I. His autobiography, which included a list of his published papers, was published in 1926, and the Westinghouse Company published a collection of his technical papers in 1919.

*James E. Brittain
School of History, Technology and Society
Georgia Institute of Technology*

IEEE NEWS

New IEEE-USA President Shares Members' Concerns about their Careers, Looks to the Promise of Technology

WASHINGTON (30 January 2009) -- IEEE-USA's great challenge in 2009 will be to live up to its motto, "Building Careers & Shaping Public Policy."

"Never before in my memory have both of these tasks been as important as they are now," said Dr. Gordon W. Day, who became IEEE-USA president on New Year's Day. "Rarely have so many of our members been so concerned about the future of their careers, and rarely has a U.S. president been so committed to using technology to preserve our prosperity, keep us secure and protect our environment."

In a recent letter to President Barack Obama (<http://www.ieeeusa.org/policy/policy/2008/120508.pdf>), Day strongly endorsed the president's strategy of making investments that will save or create jobs now and build a stronger America for the future.

"Our new energy and broadband recommendations match his strategy well," Day said.

IEEE-USA's latest energy policy recommendations (<http://www.ieeeusa.org/policy/positions/energypolicy.pdf>) call for improving energy efficiency, reducing our dependency on oil by electrifying transportation, "greening" our supply of electric power and building a stronger and smarter electrical energy infrastructure.

Another recent position statement urges the government to help provide universal, affordable access to broadband data communications (<http://www.ieeeusa.org/policy/positions/broadband.pdf>).

"The recommendations in these statements, which we will use to lobby and advise Congress, have the potential to create thousands of jobs here in America," Day said.

Day, who lives in Boulder, Colo., succeeds Dr. Russell Lefevre of Redondo Beach, Calif. Lefevre will serve as IEEE-USA's past president in 2009. Evelyn Hirt of Richland, Wash., is the organization's president-elect.

Day grew up on a farm in Scott County, Ill., and earned his bachelor's, master's and Ph.D. in electrical engineering from the University of Illinois. He joined the IEEE as a student member in 1966.

Day spent 33 years in research and management at the National Institute of Standards and Technology (NIST) in Boulder before retiring in 2003. During his last nine years at NIST, he served as division chief of NIST's Optoelectronics Division.

In 2005 Day was an IEEE-USA Congressional Fellow, serving as a science advisor to Sen. Jay Rockefeller (D-W.Va.). He focused on science education, government R&D funding, telecommunications and homeland security.

Day later worked as director of government relations for the Optoelectronics Industry Development Association, and has been a consultant in optoelectronics technology and science policy.

A Fellow of the IEEE, the Optical Society of America and the United Kingdom's Institute of Physics, Day served as president of the IEEE Lasers and Electro-Optics Society in 2000.

Day and his wife, Katherine, a retired science reference librarian, have two children, Sarah Day-O'Connell and Andrew Day, and three grandsons.

IEEE 125th Anniversary Media Roundtable Webcast to Address Emerging Technologies Enhancing Human/Technology Interactions

On 10 March, in conjunction with IEEE's 125th Anniversary, a live Web broadcast will give viewers an exclusive look at how IEEE members are engineering the future.

A panel of top minds in emerging technologies including biomedical engineering, biometrics, computing, robotics, telecommunications and wireless power will discuss the global impact their work will have on the way humans interact with each other and with technology.

The event, being held at the New Yorker Hotel in New York City, NY, USA, will include the following speakers:

- o Miguel Nicolelis, co-director, Center for Neuroengineering, Duke University Medical Center
- o Roy Want, senior principal engineer, Intel Corporation
- o Krishna Palem, professor, George Brown School of Engineering, Rice University
- o Katie Hall, chief technology officer, WiTricity
- o Rangachar Kasturi, professor, University of South Florida
- o Dharmendra Modha, manager, cognitive computing, IBM Almaden Research Center
- o K.J. Ray Liu, professor, University of Maryland, College Park

The IEEE 125th Anniversary Media Event media roundtable will take place on 10 March from 10:30 a.m. to noon EST. Pre-register for the Webcast at <http://www.ieee125.org/engineering-the-future/media-roundtable.html>.

IEEE-USA ANNOUNCES \$5,000 IN VIDEO COMPETITION SCHOLARSHIP AWARDS FOR U.S. UNDERGRADUATES

WASHINGTON (12 February 2009) -- Coinciding with Engineers Week from 15-21 February, IEEE-USA is announcing \$5,000 in scholarship awards to five undergraduates at four U.S. universities, who entered the organization's 2009 "How Engineers Make a World of Difference" video competition. According to IEEE-USA Communications & Public Awareness Vice President Paul Kostek, the winners are: first prize (\$2,000), Samantha Caldwell, University of Texas-Austin; second prize (\$1,500), Ben Toler and Emile Frey, Louisiana Tech University-Ruston; third prize (\$1,000), Paul Curtis, Indiana University at Purdue University Indianapolis; and honorable mention (\$500), Matt Elder, Rutgers University.

The four entries were deemed most effective in reinforcing for an 11-to-13-year-old audience how engineers improve quality of life. The three-judge panel included: Andrew Quecan, a Ph.D. candidate in electrical engineering at Stanford University; Suzette Presas, a Ph.D. candidate at the University of Wisconsin-Madison; and Nate Ball, mechanical engineer and host of PBS' "Design Squad." According to chief judge Quecan, "the ability of the video to reach the targeted audience was a key factor in determining the winners."

Samantha Caldwell, who submitted the first-prize entry, is a mechanical engineering major at UT-Austin, and plans to complete her bachelor's and master's degrees at the university. She cites a goal "to design a vehicle to operate without gasoline and use biofuels electricity or a different source of green energy." Caldwell will be recognized at the IEEE-USA's annual meeting in Salt Lake City on 28 February.

Second-prize winners Ben Toler and Emile Frey from LTU-Ruston are repeat winners in 2009, having garnered the first prize in 2008. Frey is applying to the University of New Orleans to enter its film program. Toler is pursuing his master's and doctorate in nuclear engineering at the Air Force Institute of Technology, Wright-Patterson Air Force Base, Dayton, Ohio. Third-prize winner Paul Cutis at IUPUI is planning to attend graduate school to study computer engineering.

The three major award winners each spent one to three weeks over their universities' winter breaks preparing entries. The first and third-prize winners even drafted their siblings to appear before the camera. The video competition was designed to be replicated in IEEE Student Sections both in and outside of the United States. IEEE-USA will launch its third 2010 video scholarship competition in September. To view all of this year's award entries, go to <http://www.youtube.com/user/ieeetusavideo>.

IEEE-USA President Praises Intel for Investing in America

WASHINGTON (13 February 2009) -- IEEE-USA President Gordon Day praises Intel for its decision to spend \$7 billion over the next two years to build advanced manufacturing facilities in the United States.

Intel President and CEO Paul Otellini made the announcement in Washington on Tuesday. It represents Intel's largest investment in a new manufacturing process.

"We commend Intel for its unprecedented investment in U.S. manufacturing," Day said. "The United States continues to lead the world in technological innovation and this will help to ensure that U.S. citizens benefit from this advanced engineering. Our economy will also benefit from having these high-wage, high-skill jobs in the United States."

Intel said the investment will be made at existing facilities in Oregon, Arizona and New Mexico and is expected to support approximately 7,000 local jobs. The company added that although about 75 percent of its sales are overseas, about the same percentage of its semiconductor manufacturing is performed in the United States. In addition, roughly three-fourths of its research & development spending and capital investments are in this country.

"We're investing in America to keep Intel and our nation at the forefront of innovation," Otellini said in a news release (<http://www.intel.com/pressroom/archive/releases/20090210corp.htm>). "These manufacturing facilities will produce the most advanced computing technology in the world. ... The chips they produce will become the basic building blocks of the digital world, generating economic returns far beyond our industry."

Intel is co-chair of Engineers Week 2009 (15-21 February), an annual effort in which IEEE-USA actively participates.

IEEE-USA's New National Energy Policy Recommends Ways United States Can Break Its Addiction to Oil, Mitigate Climate Change

WASHINGTON (17 February 2009) -- The United States can break its addiction to oil and mitigate climate change by electrifying transportation, building a modern electric grid, developing alternative fuels and increasing energy efficiency, according to IEEE-USA's new "National Energy Policy Recommendations."

"Energy underlies three converging challenges facing the United States today: prosperity, security and the environment," IEEE-USA says in <http://www.ieeeusa.org/policy/positions/energypolicy.pdf>. "Electricity can play a key role in resolving these challenges, but substantial changes in how we manage our energy resources will be required."

Oil supplies more than 96 percent of the energy used in U.S. ground transportation. Electrifying the transportation system through widespread deployment of plug-in hybrid electric vehicles (PHEVs) could reduce per-vehicle oil consumption by 50 percent.

Greenhouse gas emissions could be mitigated by generating the additional electric power needed through alternative energy sources such as wind, nuclear, solar, biofuels and natural gas, among others.

"A radical transformation of the transportation sector is needed, because directly mitigating carbon emissions in the many millions of mobile sources is impractical," according to IEEE-USA. "The proposed response is a two-pronged effort to electrify transportation ... and then replacing the remaining need for fuels to alternative carbon-neutral biofuels."

Relying more on electricity for transportation will require a "Smart Grid," i.e. one that incorporates modern technology to the U.S. electric network. This will greatly improve grid efficiency and reliability, while empowering consumers to better monitor their electric bills.

The Smart Grid should include expanding the electric transmission system and developing Massive Electricity Storage systems.

To see videos on the Smart Grid and PHEVs, go to <http://www.youtube.com/user/IEEETechActivities>.

IEEE-USA also calls for improving energy efficiency and making the U.S. energy supply greener.

"Renewable electric generating technologies, particularly those that emit minimal greenhouse gases, must be deployed to the extent that they are technologically and economically practical and have an acceptable impact on the environment and aesthetics," IEEE-USA says.

IEEE-USA Commends Congress, Administration for Investing in Science & Technology to Create Jobs, Bolster U.S. Innovation & Competitiveness

WASHINGTON (18 February 2009) -- IEEE-USA President Gordon Day commends Congress and the administration for investing in science, technology, energy, and education in the American Recovery and Reinvestment Act.

President Barack Obama signed the legislation yesterday in Denver.

"IEEE-USA strongly endorses these much-needed investments in research and our science and technology infrastructure," Day said. "We believe the investments will help stimulate education, innovation and economic development across the country, saving or creating jobs now and building a stronger America for the future."

Energy projects and programs will receive billions of dollars to improve energy efficiency, develop a "Smart Grid," provide incentives to electrify transportation and develop energy storage technology. The spending is consistent with IEEE-USA's latest energy policy recommendations (<http://www.ieeeusa.org/policy/positions/energypolicy.pdf>).

"We particularly welcome the investments in energy because energy is central to three of the most important challenges we face as a nation: prosperity, security and environmental health," Day said.

The law also takes important steps toward achieving universal access to broadband data services through the Federal Communications Commission, the Department of Commerce and the Department of Agriculture. IEEE-USA recently restated its commitment to this initiative in <http://www.ieeeusa.org/policy/positions/broadband.pdf>.

"Investing in universal broadband access will permit workers to perform many jobs almost anywhere, and will provide new educational opportunities and improved medical care everywhere," Day said.

The package also directs the National Institute of Standards and Technology (NIST) to develop standards for a national health information network, something IEEE-USA has long championed (<http://www.ieeeusa.org/policy/positions/NHINinteroperability.html>).

"Having an interoperable health information network will not only help medical professionals save lives and improve the quality of care, but will also create a more effective marketplace for health services by enabling consumer access to information on healthcare costs, quality and outcomes," Day said.

The law puts the budgets of NIST, the National Science Foundation and the Department of Energy's Office of Science on track to double over the next seven years.

"Funding the programs in science and mathematics education and R&D that Congress authorized in the America COMPETES ACT of 2007 is an essential step toward maintaining a healthy, innovation-driven economy, and assuring a vibrant high-tech workforce for the future," Day said.

**New York Middle School Wins IEEE-USA Best Communications System Award, Florida School
Captures IEEE-USA-Sponsored Third Place**

WASHINGTON (20 February 2009) -- Farnsworth Middle School of Guilderland, N.Y., won the ninth-annual IEEE-USA Best Communications System Award at the National Engineers Week Future City Competition National Finals on Wednesday.

Farnsworth was recognized for the most "efficient and accurate communications system" at the Hyatt Regency Washington on Capitol Hill.

The team included students Zubin Mukerjee, Abigail Schooner and Joseph Sipzner; engineer-mentor Robert Sipzner, PE; and Tom McGreevy, the school's technology education teacher. Robert Sipzner is a civil engineer.

Farnsworth earned its trip to the nation's capital by winning the New York (Albany) regional competition last month. Its city, "Cibola," is set in 2237.

A hand-held "Personal Education Device," or PED, is the featured element of Farnsworth's communications system. The PED utilizes a contact lens to reconstruct important events into a video to help students learn. In addition, students can go on virtual field trips through holographic imaging. The holograms also allow youngsters to transport themselves virtually so they can communicate with others anywhere in the world.

Wally Lee and Monica Mallini, both of Alexandria, Va., selected Farnsworth from among the 38 regional championship teams that competed at the finals.

"They gave thorough consideration to the capabilities and limitations of the technologies, including a consideration of spectrum crowding and frequency collisions," Mallini said after Monday's judging. "This distinguished them from the other teams.

"They were focused on learning, and their presentation was very descriptive over several applications and features of the system."

IEEE-USA President Gordon Day presented Farnsworth team members with plaques. The students will later each receive a \$100 U.S. Savings Bond.

IEEE-USA also sponsored the third-place award in the National Finals' overall competition. St. Thomas the Apostle Catholic School of Miami finished third and won \$2,000 for its science and technology program.

The team, which captured the Florida regional competition, was comprised of students Susana Becerra, Nicole Fernandez-Valle and Lauren Rodriguez; engineer-mentor Maria Fernandez-Porrata; and teacher Susy Chu. Day presented them their awards for their city, "Vai Verde," set in 2275.

The Future City Competition, which was created in IEEE-USA's former Washington office in 1992 and staged for the first time a year later, is designed to promote technological literacy and engineering to middle school students. Under the guidance of an engineer and teacher, the children create their own vision of a future city, working first on computer and then constructing three-dimensional scale models.

The students also have to write an essay about a predetermined challenge the city might face. This year's theme was "to design systems to conserve and reuse our most precious resource," water. The final piece of the contest is a presentation before a panel of judges.

More than 1,100 schools and 30,000 students from across the United States competed during the 2008-09 season. Pilot programs are held in Egypt, Sweden and Japan. A spinoff, "Future Cities 2020," is underway in India.

Bexley (Ohio) Middle School won the national championship for its future city, "Novo Mondum." The five team members will receive a trip to U.S. Space Camp in Huntsville, Ala., courtesy of Bentley Systems, Inc.

See www.futurecity.org for additional information.

When the first Future City Competition was staged, about 600 students and 175 schools participated across five regions. For more on the early history of the program, go to <http://www.todaysengineer.org/2008/Feb/FCC.asp>.

IEEE and Eta Kappa Nu Honor Society Sign Merger Agreement

24 February 2009 -- IEEE signed a merger agreement with the honor society ETA Kappa Nu (HKN), a nonprofit, public-service organization comprising nearly 200 university chapters, 14 February 2009. The merger, which will go into effect by mid-2009 pending final approval, will make HKN the official honor society of IEEE, recognizing scholarship and academic excellence and identifying student leaders, young professionals and eminent scholars in the IEEE's technical fields of interest.

Under the agreement, HKN will become an organizational unit of IEEE, governed by the new IEEE-HKN Board of Governors. A restricted endowment will be created in the IEEE Foundation to support HKN's educational, societal, and recognition activities. In addition to holding HKN's current assets, the new endowment will receive an initial donation of US\$1.2M from IEEE.

Read the full press release at <http://www.ieee.org/web/aboutus/news/2009/24feb.html>.

Washington State Engineer to Receive IEEE-USA's Highest Honor, Former NAE President to be Recognized for Public Service

WASHINGTON (24 February 2009) -- IEEE-USA President-Elect Evelyn Hirt will receive the organization's highest honor during the IEEE-USA Annual Meeting at the Salt Lake City Marriott City Center on 28 February.

Hirt, an IEEE senior member, will be presented the Robert S. Walleigh Distinguished Contributions to Engineering Professionalism Award "for enthusiastic leadership and contributions in a wide range of IEEE-USA professional activities."

IEEE Fellow and former National Academy of Engineering (NAE) President William Wulf will also be honored with the IEEE-USA Award for Distinguished Public Service. Wulf, who is unable to attend, was selected "for advancing engineering professionalism and promoting U.S. competitiveness in science and technology."

Hirt and Wulf will be among 18 award recipients recognized for their professionalism and technical achievements, as well as literary contributions to public awareness and understanding of the engineering profession in the United States.

Russ Lefevre, IEEE-USA's 2008 president, will make the presentations.

Hirt is a subject matter expert in systems (hardware, software and integration) and controls for Battelle Memorial Institute at the Pacific Northwest National Laboratory in Richland, Wash. She served on the IEEE-USA board as Region 6 director in 2003-04 and was the region's liaison to the IEEE Women in Engineering Committee in 2007-08.

Hirt has worked on numerous IEEE technical councils and conference committees, and was a member of the Aerospace and Electronic Systems Society Board of Governors from 2003 to 2007. She will serve as IEEE-USA president next year.

Robert S. Walleigh, an IEEE member electrical engineer, worked for the National Bureau of Standards -- now the National Institute of Standards and Technology (NIST) -- for more than 35 years. He retired as a senior adviser for international affairs in 1979. He worked the next 18 years as an IEEE-USA senior specialist.

The award was first presented in 1978 and renamed the "Robert S. Walleigh Distinguished Contributions to Engineering Professionalism Award" in 2000.

IEEE-USA's awards program is administered under its Awards and Recognition Committee and approved by the IEEE-USA Board of Directors. The nomination deadline for 2009 awards is 31 July 2009. For additional information, go to www.ieeeusa.org/volunteers/committees/awards or contact Sandra Kim at sandra.kim@ieee.org.

The 2008 IEEE-USA award recipients are:

Robert S. Walleigh Distinguished Contributions to Engineering Professionalism Award

Evelyn Hirt - For enthusiastic leadership and contributions in a wide range of IEEE-USA professional activities

Award for Distinguished Public Service

William Wulf - For advancing engineering professionalism and promoting U.S. competitiveness in science and technology

Regional Professional Leadership Award

Dusty Fisher - For long-term service and creative activities for precollege programs in Region 5

Donald Hill - For long-term service and leadership of IEEE-USA's Government Activities Committee

John Nirschl - For long-term efforts in precollege activities promoting engineering in Iowa

R Sampath - For efforts in shaping public policy initiatives in education and engineering in California

Myron F. Wilson - For outstanding leadership in developing and implementing precollege activities in Region 4

Divisional Professional Leadership Award

Richard Kolodziejczyk - For developing and implementing tutorials for the joint chapter of the IEEE Computer and Control Systems Societies, promoting the educational and professional advancement of engineers

Professional Achievement for Individuals

Martin Izaak - For efforts in establishing and chairing the consultants network in the New York Section

Emily Sopensky - For promoting the IEEE-USA Congressional Fellows program and her efforts in developing technology policies

Citation of Honor

Jim Fancher - For long-term service and his active role in formulating IEEE-USA's Energy Policy Committee position on electrical power reliability

Edward G. Perkins - For his leadership and promotion of IEEE-USA products and services by organizing career seminars and workshops for U.S. IEEE members

Thomas A. Schneider - For formulating and advocating IEEE-USA's energy policy and providing leadership as energy policy chair

Richard Schwarz - For distinguished long-term service in establishing and evaluating engineering licensure standards

Award for Distinguished Literary Contributions Furthering the Public Understanding of the Profession

Alan Boyle - For increasing public understanding of engineering with his series of articles on future engineering challenges

John Dodge - For increasing public understanding of engineering with his series of articles on the key new technologies in the Boeing 787 Dreamliner

Award for Distinguished Literary Contributions Furthering Engineering Professionalism

Richard A. Ellis - For substantial and sustained contributions that have significantly improved the understanding of science and engineering labor markets by professionals and public policymakers

Harry Diamond Award

Dwight Woolard - For contributions and leadership in the discovery and development of novel electronic and optoelectronic devices and systems with emphasis on terahertz frequencies

The IEEE Cincinnati Section Executive Committee **Member Names and Phone Numbers**

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